## West Virginia Department of Environmental Protection Division of Air Quality

## **Fact Sheet**



# For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: R30-01700011-2017
Application Received: August 17, 2016
Plant Identification Number: 01700011
Permittee: Dominion Transmission, Inc.
Facility Name: West Union Plant
Mailing Address: 925 White Oaks Blvd.,

Bridgeport, WV 26330

Physical Location:

West Union, Doddridge County, West Virginia

**UTM Coordinates:** 

516.45 km Easting • 4352.50 km Northing • Zone 17

Directions:

5 miles north of West Union on Highway 18, Doddridge County

### **Facility Description**

The West Union Plant is a natural gas liquids extraction facility. Propane and heavier components of natural gas are removed through a turbo-expander cryogenic process, and a mixed natural gas liquids product is produced. It is covered by primary Standard Industrial Code (SIC) 1321 and secondary SIC 4922. The plant has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The plant consists of two (2) 730-hp natural gas fired reciprocating engines and 8 storage tanks.

#### **Emissions Summary**

Plantwide Emissions Summary [Tons per Year]				
Regulated Pollutants	<b>Potential Emissions</b>	2015 Actual Emissions		
Carbon Monoxide (CO)	46.52	1.73		
Nitrogen Oxides (NO <sub>X</sub> )	267.88	36.40		
Particulate Matter (PM <sub>10</sub> )	0.54	0.06		
Total Particulate Matter (TSP)	1.10	0.11		
Sulfur Dioxide (SO <sub>2</sub> )	0.03	0		
Volatile Organic Compounds (VOC)	69	22.90		

Hazardous Air Pollutants	Potential Emissions	2015 Actual Emissions
Formaldehyde	1.16	0.12
Acrolein	0.15	0.02
Acetaldehyde	0.16	0.02
Benzene	0.09	0.01
Ethylbenzene	< 0.01	0
Toluene	0.03	< 0.01
Xylene	0.01	< 0.01
TOTAL HAPs	< 1.61	< 0.19

Some of the above HAPs may be counted as PM or VOCs.

### **Title V Program Applicability Basis**

This facility has the potential to emit 267.88 tons/yr of NOx. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

### **Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State: 45CSR6 Open burning prohibited.

45CSR11 Standby plans for emergency episodes.
45CSR16 Standards of Performance for New

Stationary Sources 40CFR60

	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting
	45CSR30	Operating permit requirement
	45CSR34	HAPs emissions standards
	40 C.F.R. Part 60, KKK	Equipment leaks of VOC from Onshore
		Natural Gas Processing Plants
	40 C.F.R. Part 60, VV <sup>1</sup>	Equipment Leaks of VOC in the Synthetic
		Organic Chemicals Manufacturing Industry
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
•	45CSR17	Particulate Fugitive

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 et seq., 45CSR16, 45CSR34 and 45CSR30.

#### **Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
None		

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

## **Determinations and Justifications**

The following are changes/additions to the most recent Title V permit for this facility:

 Emission Units Table 1.1 – removed a 150 gal Wastewater Storage Tank TK04 and added a 1,000 gal Aboveground Used Oil Storage Tank TK09. Tank TK09 doesn't have applicable requirements (see Non-Applicability Determinations section below, item 4). Also, Tank TK05 content was changed from "Wastewater" to "Produced Fluid".

<sup>&</sup>lt;sup>1</sup>Although this facility is not subject to 40 C.F.R. 60 Subpart VV, many sections of Subpart VV are incorporated by reference in 40 C.F.R. 60 Subpart KKK

- 2. Section 4.0 requirements of the Part 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" applicable to the existing non-emergency SI 4SRB reciprocating internal combustion engines 001-01 and 001-02 were included with the permit during the 2012 renewal, but at that time there was no "Remote Stationary RICE" classification in the regulation. Per §63.6603(f), "An existing non-emergency SI 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart". On October 18, 2013, the company notified DAQ and EPA about the "remote" status of the engines. During this permit renewal process it was determined that the engines meet the definition of "Remote Stationary RICE" in §63.6675 by the following criteria: "(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine". Per §63.6603(f), the status of the "Remote Stationary RICE" must be evaluated every 12 months and records of the initial and annual evaluations must be kept. Therefore, Part 63 Subpart ZZZZ applicable requirements were revised as follows:
  - Tables 2d and 6 were updated (requirement 4.1.1), and Sections §63.6603(f), §63.6625(j) and §63.6655(e)(3) applicable to remote engines were added to requirements 4.1.1 and 4.4.1;
  - Section §63.6595 (requirement 4.1.1) was removed because it is obsolete: Subpart ZZZZ compliance date of October 19, 2013 has passed, and the company sent a Notification of Compliance Status on October 18, 2013;
  - Sections §63.6612, §63.6615, §63.6620, §63.6625(a) and (b), §63.6630, §63.6635, §63.6645,
     §63.6650(a) through (e), §63.6655(b) were removed because they are not applicable to remote engines;
  - Tables 1b, 3, 4, 5 and 7 (requirements 4.1.1, 4.3.1 and 4.5.1) were removed because they're not applicable to remote engines.
- 3. Requirement 3.7.2 a Permit Shield was added.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

- 40 C.F.R. 63, Subpart HH "National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities" is not applicable to West Union Plant because it doesn't have a "triethylene glycol (TEG) dehydration unit located at a facility" (as per 40 C.F.R. §63.760(b)(2)). Additionally, the Subpart HH requirements for natural gas processing plants do not apply to area HAP sources.
- 40 C.F.R. 60, Subpart K "Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction or Modification Commenced after June 11, 1973 and prior to May 19, 1978" – all tanks were constructed after July 23, 1984, therefore they are exempt from this subpart.
- 3. 40 C.F.R. 60, Subpart Ka "Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction or Modification Commenced after May 18, 1978 and prior to July 23, 1984" all tanks were constructed after July 23, 1984, therefore they are exempt from this subpart.
- 4. 40 C.F.R. 60, Subpart Kb "Standards of Performance for Volatile Organic Liquids Storage Vessel (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced after July 23, 1984" tanks TK01 through TK03, TK05 and TK09 are below the minimum size threshold of 75 m³ (19,813 gal), therefore they are exempt from the requirements of this Subpart per 40 CFR §60.110b(a). The NGL tanks' (TK06 TK08) size (30,000 gal) is in the

applicable range of greater than 75 m<sup>3</sup> (19,813 gal), but they are pressure vessels designed to operate at 1,034 kPa (in excess of 204.9 kPa), and do not have emissions to the atmosphere. Therefore, they are exempt per 40 CFR §60.110b(d)(2).

- 5. 40 C.F.R. 60, Subpart JJJJ "Standards of Performance for Stationary Spark Ignition Combustion Engines" the compressor engines 001-01 and 001-02 are not subject to this subpart since they were manufactured before the applicability date of June 12, 2006 (§60.4230(a)(4)) and were not modified or reconstructed after June 12, 2006 (§60.4230(a)(5)).
- 6. 40 C.F.R. 60, Subpart OOOO "Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Reconstruction or Modification Commenced after August 23, 2011, and or before September 18, 2015" the facility commenced construction prior to August 23, 2011 and has not been modified or reconstructed after August 23, 2011, and or before September 18, 2015. Therefore, the facility is not subject to this Subpart.
- 7. 40 C.F.R. 60, Subpart OOOO "Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced after September 18, 2015" the facility commenced construction prior to September 18, 2015 and has not been modified or reconstructed after September 18, 2015. Therefore, the facility is not subject to this Subpart.
- 8. 40 C.F.R. 64 Engines do not have any controls; Therefore, in accordance with 40 C.F.R. §64.2(a)(2), CAM is not applicable to the engines.

### Request for Variances or Alternatives

None.

#### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

#### Comment Period

Beginning Date: May 9, 2017 Ending Date: June 8, 2017

All written comments should be addressed to the following individual and office:

Natalya V. Chertkovsky-Veselova Title V Permit Writer West Virginia Department of Environmental Protection Division of Air Quality 601 57<sup>th</sup> Street SE Charleston, WV 25304

Phone: 304/926-0499 ext. 1220 • Fax: 304/926-0478

#### Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

## Response to Comments (Statement of Basis)

Not applicable.